

## **REMARKS/ARGUMENTS**

Claims 1, 3 through 17, and 20 through 29 will remain pending in the Application following entry of the above amendments. Claims 2, 18 and 19 are canceled by this Amendment. Claims 1 and 20 are amended to clarify the claimed invention. Claims 4, 5, 7, 8, 10, 12, and 27 are amended solely to correct spelling errors or to define acronyms. No new matter has been introduced by the amendments.

Claim 12 is objected to because the acronym "PVA" was not defined in the claim.

Claim 12 has been amended to define PVA as "polyvinyl alcohol," as defined on page 10, line 9, of the application. Claim 12 was also amended to define CMC as "carboxymethyl cellulose," as disclosed on page 10, line 14, of the application. These amendments traverse the objection thus, Applicants respectfully request reconsideration and withdrawal of the objection to claim 12.

Claims 1 through 12, 20, 22, 24, 25 and 26 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,270,873 to Darnett. Applicant submits that claim 2 has been canceled by this Amendment, thus rendering the

rejection of this claim moot. The features of claim 2 are incorporated into claim 1 and are discussed below.

Darnett describes absorbent food pads used as both biofluid absorbers or as cooling pads (col. 1, lines 60-62). The absorbent pads have a top sheet and a bottom sheet which are joined to form at least one cell or pouch having an absorbent material in between, and at least one of the sheets is liquid impermeable but has microperforations allowing fluid to pass through the microperforations and into the cell (col. 1, line 65 to col. 2, line 4). Figures 1 – 3 and 7 – 9 are identified in Darnett as particularly suitable for absorbing biofluids, the pads differing in the size of the cells and the type of bottom sheet (col. 6, lines 13 – 19). Each of the absorbent pads disclosed and illustrated by Darnett has an overall rectangular shape (see, e.g., Figures 1a, 2a, 3a, 4a, 5a, 6a, 7a, 8a, 9a, 10a, 11a, 12a, 13a, 14a, 15a, 16a, 17a, and 20a).

Claim 1 recites an absorbent food pad comprising a top sheet; a bottom sheet; and one or more islands disposed between the top sheet and the bottom sheet. The absorbent food pad has one or more complex shapes selected from the group consisting of circle, oval, oblong, polygon, trapezoid, triangle, donut-shaped, cone, rod, and any combinations thereof.

Applicant respectfully submits that Darnett fails to anticipate claim 1 of the present application, as it clearly fails to disclose or suggest an absorbent food

pad with a complex shape selected from the group consisting of circle, oval, oblong, polygon, trapezoid, triangle, donut-shaped, cone, rod, and any combinations thereof.

Contrary to the claimed invention, the Action appears to characterize the various pouch arrangements in Darnett as defining complex shapes and thus concludes that the absorbent pad of Darnett has at least one complex shape. Applicant respectfully submits, however, that the claimed invention provides for the absorbent food pad itself to have one or more of the claimed complex shapes, irregardless of the geometry or configuration of the one or more islands disposed between the top sheet and the bottom sheet of the absorbent food pad.

Accordingly, Applicant respectfully submits that Darnett clearly fails to disclose or suggest the absorbent food pad recited in claim 1 and claims 3 through 10 dependent therefrom. As such, reconsideration and withdrawal of the §102(b) rejection of these claims are respectfully requested.

Independent claim 11 recites an absorbent pad having a top sheet; a bottom sheet; and two or more islands disposed between the top sheet and the bottom sheet. The two or more islands are separated by a barrier layer.

Dependent claim 12 recites the absorbent pad of claim 11, adding the feature that the barrier layer is formed from one or more materials selected from

polyvinyl alcohol (PVA), chitosan, alginate, pectin, polyamide, cellulose, carboxymethyl cellulose (CMC), starch, and any combinations of these.

Darnett is summarized above. Of relevance to claims 11 and 12, Darnett further describes absorbent pads having an additional, "barrier" sheet, provided below the microperforated sheet, to reduce any egress of the absorbent material out of the cells (pouches) within the absorbent pad (col. 3, lines 43 – 55). Darnett discloses that "various types of papers" can be used as the barrier sheet (col. 3, line 48).

Applicant respectfully submits that Darnett fails to disclose or suggest an absorbent pad having the claimed barrier layer recited in claims 11 and 12. In particular, Darnett's disclosed barrier sheet is a fluid permeable mechanical barrier intended to contain the absorbent material inside the pouch or pad, i.e., the barrier sheet does not dissolve or break down when the absorbent pad is in use. In complete contrast, the claimed barrier layer of the present invention are dissolving nonwovens or films which are intended to initially protect "actives" (such as an antimicrobial agent, sanitizing agent, oxygen scavenger, CO<sub>2</sub> emitters, ethylene scavenger, surface-active agent, etc.) from oxygen and/or moisture and/or other components in the "actives" system, but then break down and/or dissolve to release the actives when the absorbent pad is put into use (page 9, line 24 to page 10, line 16). The present application discloses several examples of raw materials which can be used in such "dissolving films": polyvinyl

alcohol (PVA), chitosan, alginate, pectin, polyamide, cellulose, and starch (page 10, lines 8 – 10). Notably, Darnett discloses “paper” as a possible barrier layer, as contrasted with the “dissolving paper” of the present application (page 10, lines 13 – 16). Therefore, the barrier layer of Darnett is clearly not the same as the claimed barrier layer.

Accordingly, Darnett fails to disclose or suggest the absorbent pad recited in claims 11 and 12. Therefore, Applicant respectfully requests reconsideration and withdrawal of the §102(b) rejection of claims 11 and 12.

Independent claim 20 recites an absorbent pad having a top sheet, a bottom sheet, an island disposed between the top sheet and bottom sheet, and one or more fluid channels.

Dependent claim 22 recites the absorbent pad according to claim 20, where the top sheet and bottom sheet are intermittently sealed together to form one or more fluid channels.

Dependent claim 24 recites the absorbent pad according to claim 20, where the top sheet and/or bottom sheet are free of perforations.

Darnett is summarized above. Of relevance to claims 20, 22, and 24, the Action asserts that Darnett’s absorbent pads form “channels for transporting

liquids” in the areas between pouches where the top sheet and bottom sheet are sealed together.

Applicant respectfully submits that Darnett fails to disclose or suggest fluid channels of the kind recited in claims 20, 22 and 24. The fluid channels recited in claim 20 and its dependent claims can be formed by intermittently heat-sealing the top sheet and bottom sheet, by allowing one layer or by leaving a void between sealed areas, thereby creating channels for fluid to flow from the external surface into the interior of the pad and the absorbent material (page 12, lines 9 – 14 and lines 20 – 23). This is clearly different than the description of the channels for transporting liquids described in the Action, which are the valleys formed between the pouches on the external parts only of Darnett's pad.

Accordingly, Darnett fails to disclose or suggest the fluid channels in claims 20, 22 and 24. Therefore, Applicant respectfully requests reconsideration and withdrawal of the rejection to claims 20, 22 and 24 brought under 35 U.S.C. §102(b).

Independent claim 25 recites a top sheet, bottom sheet, and one or more islands disposed between the top and bottom sheets where the top sheet and/or bottom sheet have a “predetermined pattern of perforations resulting in one or more zones for increased and/or decreased fluid uptake.”

Dependent claim 26 recites the absorbent pad according to claim 25, adding the feature that the perforations vary in diameter across the predetermined pattern of perforations.

Darnett is summarized above. Of relevance to claims 25 and 26, Darnett discloses an absorbent pad having a top sheet and bottom sheet joined to form at least one cell where the top sheet and/or bottom sheet have perforations (col. 1, line 65 to col. 2, line 24) which are “typically spread across the sheet in a substantially homogeneous fashion” (col. 2, lines 25 – 26).

Although Darnett discloses absorbent pads having top sheets or bottom sheets that have perforations or microperforations, Darnett fails to disclose an absorbent pad with varying patterns of perforation that results in zones having increased or decreased fluid uptake (as compared with top or bottom sheets having a uniform pattern of perforations). The pattern of perforations is an important feature because the various perforation “zones” can be designed in such a way as to promote certain properties of the absorbent pad, such as minimizing desiccation effects where food contacts the absorbent pad, or maximizing fluid absorption nearer to the perimeter.

Accordingly, Darnett fails to disclose or suggest the absorbent pad recited in claims 25 and 26. Applicant therefore requests reconsideration and

withdrawal of the rejections to claims 25 and 26 brought under 35 U.S.C. §102(b).

Claims 18 and 19 are canceled by this amendment, mooted the rejections to those claims brought under 35 U.S.C. §103(a).

Claims 21 stands rejected under 35 U.S.C. §103(a) as obvious over Darnett.

Darnett is summarized above.

Dependent Claim 21 recites the absorbent pad of claim 20, having a top sheet, a bottom sheet, an island disposed between the top and bottom sheets and “one or more fluid channels,” further comprising a transfer sheet between the bottom sheet and the island where the transfer sheet extends horizontally beyond the top sheet, forming one or more of the fluid channels disposed between the top sheet and the transfer sheet. Absorbent pads having such fluid channels are disclosed at page 12, lines 16 – 23, and illustrated by Figs. 8 and 9.

Applicant respectfully submits that the Action fails to make a *prima facie* case of obviousness as to claim 21. In general, the following criteria must be met to establish a *prima facie* case of obviousness. First, the prior art relied upon, coupled with the knowledge generally available in the art at the time of the



invention, must contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combine reference teachings.

Second, there must be a reasonable expectation of success. Finally, the prior art reference, or combination of references, must teach or suggest all of the claimed limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must be found in the prior art, and not based on Applicant's disclosure. MPEP §2142, *citing In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438, 1442 (Fed. Cir. 1991).

Specifically, Darnett fails to teach or suggest an absorbent pad having a transfer sheet extending horizontally beyond the top sheet to create one or more fluid channels between the top sheet and the transfer sheet. The Action equates the "barrier sheet" disclosed at col. 3, line 43 of Darnett with the "transfer sheet" of the present invention. While the Action notes that Darnett does not teach a barrier sheet extending horizontally beyond the top sheet, the Action states that it would have been obvious to one of skill in the art to change the dimensions of the barrier sheet, so as to create a fluid channel from the top sheet into the inside of the absorbent pad. Applicant respectfully disagrees that this would have been obvious to the skilled artisan at the time of this application, and in support would draw attention to the fact that Darnett discloses the barrier sheet for the express purpose of keeping the absorbent material inside the cells or pouches (col. 3, lines 43 – 47). It would be directly contrary to the intent of Darnett to create a

barrier sheet that intentionally extended beyond the top sheet and created a route for leakage of the absorbent material out of the cells or pouches.

The Action further suggests that, because Darnett discloses a barrier sheet, merely changing the dimensions of the barrier sheet to extend horizontally beyond the top sheet discloses the “general conditions” of claim 21, which would have been obvious because “where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art.” *In re Aller*, 105 USPQ 233 (CCPA 1955). Applicant would respectfully submit that the Action fails to make a *prima facie* case of obviousness on this basis, as the facts of the present application are readily distinguishable from *Aller*. In *Aller*, the claimed process was identical to that of the prior art, except that applicants’ claims specified lower temperatures and higher sulphuric acid concentrations than were shown in the reference. *Aller*, 105 USPQ at p. 234. Specifically, Applicants’ process was claimed at temperatures between 40°C and 80°C, and sulphuric acid concentrations between 25% and 70%, as compared with the prior reference showing the process was conducted at 100°C and at a sulphuric acid concentration of 10%. *Id.*; see also MPEP 2144.05(II)(A), citing *in re Peterson*, 65 USPQ2d 1379, 1382 (Fed. Cir. 2003)(“the normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages”). However, it can readily be determined that the prior reference in this case,

Darnett, is distinguishable from *Aller* or *Peterson* in that Darnett describes a barrier sheet in general terms to prevent spillage of absorbent material from the cells or pouches, but did not claim or describe specific dimensions of a barrier sheet. There is no suggestion or teaching in Darnett that the dimensions of the barrier sheet could simply be varied to extend out beyond the top sheet to create a channel for liquids; in fact, as noted above, the purpose disclosed in Darnett would be defeated by this. The Action thus fails to describe a motivation for one of skill in the art, at the time of the application, to have selected a barrier sheet (transfer sheet) extending horizontally beyond the top sheet, as recited in claim 21 and shown in Figures 8 and 9, to create channels for liquids.

Moreover, the features of dependent claim 21 would not have been obvious to a person of skill in the art because the features of the independent claim 20 would not have been obvious; that is, for the reason that Darnett does not teach or suggest absorbent pads having “fluid channels” as disclosed in claim 20.

Accordingly, Applicant would submit that Darnett does not teach or suggest the features of claim 21. Applicant therefore respectfully requests reconsideration and withdrawal of the rejection to claim 21 brought under 35 U.S.C. §103(a).

Claim 23 stands rejected under 35 U.S.C. §103(a) as obvious over Darnett.

Darnett is summarized above.

Claim 23 recites the absorbent pad of claim 20, having a top sheet, bottom sheet, an island between the top and bottom sheets and one or more fluid channels, adding the feature that the top sheet and/or bottom sheet are “kiss cut” (also known as “controlled depth die cutting”) to form the one or more fluid channels.

Applicant respectfully submits that the Action fails to make a *prima facie* case of obviousness as to claim 23. In general, the criteria to establish a *prima facie* case of obviousness are provided above in the argument for claim 21, although the burden of proof is less where the issue is product-by-process (MPEP 2113).

Specifically, Darnett fails to teach or suggest an absorbent pad having fluid channels of the type recited in dependent claim 23. The Action states that the Darnett’s product, which utilizes microperforation of one layer of the top and bottom sheets, is “substantially identical” to the product recited in claim 23. However, Applicant respectfully would draw attention that Darnett teaches that microperforations have various shapes and sizes “depending on the process

used” to perforate the sheet (such as hot pin or cold pin perforating, open flame perforating, etc.), such that the perforation may even have a flap or hinged portion adjacent to the hole (col. 2, lines 30 – 42). The Action acknowledges that Darnett does not teach the technique of “kiss cutting” the top and bottom sheets of the absorbent pad to form the one or more fluid channels, and provides no rationale tending to show why it would have been obvious to a person of skill in the art that any of the fluid channels in the absorbent pads disclosed in Darnett would be “substantially identical” to the shape, properties or characteristics of the fluid channels recited in claim 23.

Accordingly, Darnett fails to teach or suggest an absorbent pad having fluid channels as recited in claim 23. Applicant therefore respectfully requests reconsideration and withdrawal of the rejection to claim 23 brought under 35 U.S.C. §103(a).

Claim 27 stands rejected under 35 U.S.C. §103(a) as obvious over Darnett.

Darnett is summarized above.

Independent claim 27 recites an absorbent pad having a top sheet, bottom sheet, one or more islands disposed between the top and bottom sheets where the top sheet and/or bottom sheet comprises a metallocene polyethylene.

Applicant would submit that the Action fails to make a *prima facie* case of obviousness as to claim 27. In general, the criteria to establish a *prima facie* case of obviousness are provided above in the argument for claim 21, although the burden of proof is less where the issue is product-by-process (MPEP 2113). Applicant would respectfully disagree that the lesser burden applies to claim 27 because there is no “process” recited in claim 27; rather, a metallocene polyethylene is a physical component of the material of the top sheet and/or bottom sheet.

The Action acknowledges that Darnett does not teach a metallocene polyethylene, but simply asserts that metallocene polyethylene constitutes product-by-process language and consequently the absorbent pad taught in Darnett is “substantially identical” to the absorbent pad recited in claim 27. However, Applicant respectfully would disagree with this conclusion, and in support would draw attention that a metallocene polyethylene recited in claim 27 is a physical material contained in the top sheet and/or bottom sheet, and is not part of a “process” to make an absorbent pad. Thus, there is no product-by-process in claim 27. Metallocene polyethylene permits the absorbent pad itself to be made more quickly, and thus is an element adding value to the claimed invention. Darnett fails to teach or suggest a top sheet and/or bottom sheet comprising metallocene polyethylene, and thus fails to support a *prima facie* case

for obviousness. Applicant respectfully requests reconsideration and withdrawal of the rejection to claim 27 brought under 35 U.S.C. §103(a).

Claim 28 stands rejected under 35 U.S.C. §103(a) as obvious over Darnett.

Darnett teaches that the absorbent pad can be formed by heat sealing the top sheet and bottom sheet together, preferably where the top sheet and bottom sheet are made of heat meltable materials, or to glue the sheets together (col. 5, lines 1 – 8).

Independent claim 28 recites a method for assembling an absorbent pad having a top sheet, bottom sheet, and one or more islands disposed between the top and bottom sheets, where the method comprises the steps of disposing one or more islands between the top sheet and bottom sheet; electrostatically adhering the top sheet to the bottom sheet; and sealing the electrostatically adhered top sheet and bottom sheet together, where the absorbent pad is assembled without the use of glue or adhesives.

Applicant respectfully submits that the Action fails to make a *prima facie* case of obviousness as to claim 28. In general, the criteria to establish a *prima facie* case of obviousness are provided above in the argument for claim 21, although the burden of proof is less for product-by-process claims (MPEP 2113),

as asserted in the Action. However, Applicant would respectfully disagree that the lesser burden of proof applies because claim 28 is, in fact, a method claim and not a product-by-process claim.

The Action acknowledges that Darnett does not teach the step of “electrostatically holding pouches 14 in place prior to sealing thus forming a bond between the topsheet 10 and bottom sheet 11 without the use of adhesive,” but asserts that “the method of sealing the pouches in place is an alternate method of holding said pouches electrostatically in place or corona treating the top or bottom sheet, producing an identical product” (*citing* MPEP 2113). As noted earlier, claim 28 is a *method* of making an absorbent pad, not the product itself. Thus, the step of electrostatically adhering the top sheet to the bottom sheet before sealing, without the use of glue or adhesives, is a definable advantage and a relevant step and feature in the claimed method. Darnett fails to teach or suggest the steps of: electrostatically adhering the top sheet to the bottom sheet, and sealing the electrostatically adhered top sheet and bottom sheet together, without the use of glue or adhesives. Thus, Darnett does not make a *prima facie* case to render obvious claim 28. Applicant therefore requests reconsideration and withdrawal of the rejection of claim 28 under 35 U.S.C. §103(a).

Claim 13 stands rejected under 35 U.S.C. §103(a) as obvious over Darnett in view of U.S. Patent No. 6,926,862 [patent number transposed in the Action] to Fontenot, et al. (“Fontenot”).



Darnett is described above. The Action acknowledges that Darnett does not teach that the pouches 14 claim any “active” agent among those recited in claim 13. Fontenot teaches a container liner, a shelf liner, or drawer liner having a layer that is impervious to liquids, and an absorbent layer that contains an odor-absorbing material (col. 3, lines 19 – 30). The Action asserts that it would have been obvious to one of ordinary skill in the art to provide antifungal means as taught by Fontenot to the absorbent pad taught by Darnett, as both are “used in direct contact with food.”

Claim 13 teaches the absorbent pad of claim 11 where two or more islands comprise at least one active selected from the group consisting of antimicrobial agent, sanitizing agent, oxygen scavenger, CO<sub>2</sub> emitter, ethylene scavenger, surface-active agent, and any combinations thereof.

Applicant respectfully submits that the Action fails to make a *prima facie* case of obviousness as to claim 13. The criteria to establish a *prima facie* case of obviousness are provided above in the argument for claim 21.

In the instant case, Darnett does not provide a suggestion or incentive to have motivated the person of ordinary skill in the art to add an “active” (such as an antimicrobial agent, sanitizing agent, oxygen scavenger, CO<sub>2</sub> emitter, ethylene scavenger, surface-active agent, and/or any combinations of these

agents) into the pouches or cells of an absorbent pad, with a reasonable prospect of success. Indeed, Darnett discloses the use of absorbent materials or water (to freeze for use as a cooling pad) inside the pouches, but fails to present any unmet need for any of the above-listed “actives” to provide an incentive for the person of skill in the art to seek to combine this teaching with that of Fontenot. Without such a motivation, Darnett fails to support a *prima facie* case for obviousness. Applicant therefore would request reconsideration and withdrawal of the rejection to claim 13 brought under 35 U.S.C. §103(a).

Claims 14 through 17 stand rejected under 35 U.S.C. §103(a) over Darnett in view of U.S. Patent No. 5,320,895 to Larssonneur.

Darnett teaches a bottom sheet and pouches containing absorbent material, but does not teach one or more side panels hingeably connected to the bottom sheet. Larssonneur teaches an absorbent pad having side edges 110,112 comprised of a top sheet 102 and bottom sheet 106 sealed together to enclose an absorbent mat 104. The absorbent pad has a sealed edge that is flexible and can bend up along the sides of a tray.

Claim 14 recites an absorbent pad having a base panel and one or more side panels hingeably connected to the base panel. Dependent claim 15 recites the absorbent pad according to claim 14, where one or more of the side panels are foldable, allowing the absorbent pad to conform to a base and sidewalls of a

similarly dimensioned package or container. Dependent claim 16 also recites the absorbent pad according to claim 14, adding the feature where the base pad further has a top sheet, bottom sheet, and one or more islands disposed between the top sheet and the bottom sheet. Claim 17 recites the absorbent pad according to claim 14, where the one or more side panels each further have a top sheet, bottom sheet, and one or more islands disposed between the top and bottom sheets.

Applicant respectfully submits that the Action fails to make a *prima facie* case of obviousness as to claims 14 – 17. In general, the criteria to establish a *prima facie* case of obviousness are provided above in the argument for claim 21.

The Action acknowledges that Darnett does not teach one or more side panels hingeably connected to the bottom sheet. Darnett does not contain any suggestion or incentive that would motivate a person of ordinary skill in the art to add a hingeably-connected side panel (such as is illustrated in the absorbent pad in Figure 7 and described on page 11, line 24 through page 12, line 1 of the present application) to the absorbent pad, with a reasonable prospect of success. The advantage of such hingeably connected panels would to cover not only the bottom of the container but some portion of the four sides of the container as well (page 11, lines 29 – 32). Darnett does not provide any suggestion that the side walls of trays or containers should be covered by a panel of an absorbent pad

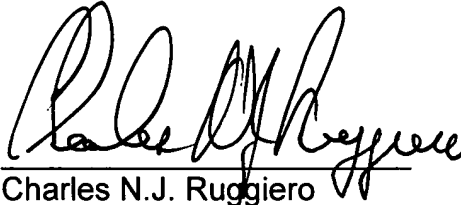
absorbent pad that is connected to the bottom sheet. In fact, Larssonneur's hingeable connected side panels are simply sealed edges that are flexible enough to bend up alongside the walls of the container so that even if combined with Darnett the combination is insufficient to teach or suggest all of the claimed features of claims 14 through 17 with a reasonable expectation of success. Dependent claim 17, in particular, has claim elements which are not taught by this combination of art references, in that the one or more side panels have one or more islands disposed between a top sheet and bottom sheet.

Accordingly, the combination of Darnett and Larssonneur thus fails to support a *prima facie* case for obviousness for claims 14 through 17. Applicant therefore requests reconsideration and withdrawal of the rejections to claims 14 through 17 brought under 35 U.S.C. §103(a).

In view of the above, Applicants respectfully submit that the claimed invention is patentably distinguishable over the cited art, taken alone or in combination. As such, reconsideration and withdrawal of all claim rejections and objections and passage of this application to allowance are respectfully requested.

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Respectfully submitted,

A handwritten signature in black ink, appearing to read "Charles N.J. Ruggiero", written over a horizontal line.

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